

Work Order ID 82121***82121***

Page 1

March-23-12 10:44:20 AM

Item ID: D4149-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Crosstube Lug Plate, Aft

Start Date: 23/03/2012 Start Qty: 24.00

24

Cust Item ID:

Required Date: 06/04/2012 Req'd Qty: 24.00

24

Customer:

Reference:

Approvals: Process Plan: MLJDate: 12/03/23

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D4149

C

100

0.00

100

Waterjet

Memo

0.00

FLOW CNC Waterjet

Cut as per dwg D4149

Prog Rev: EDwg Rev: E

304.128

Deburr as required

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.00

Quality Control

W 12.03.31 (24)

W 12.03.31 (24)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

82121

March-23-12 10:44:20 AM

N900040100

Setup Start *NS1*

Stop ***NS2***

24

24

Reference:

Run Start *NR1*

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

**Insp.
Stamp**

120

8.2/04/02

counts
(24)

Identify as per dwg & Stock Location: 133

150

0.00

JB (24)

12/04/03

QC21- Final Inspection - Work Order Release

160

0.00

12/4/39

R12-04-3

Dart Aerospace Ltd

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Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR: Yes No** **DQA:** _____ **Date:** _____
Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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Picklist Print

March-23-12 10:44:24 AM

Page 1

Work Order ID: 82121

82121

Parent Item: D4149-1

D4149-1

Parent Item Name: Crosstube Lug Plate, Aft

Start Date: 23/03/2012

Required Date: 06/04/2012

Start Qty: 24.00

Required Qty: 24.00

Comments: IPP Rev:A 10.06.24 new issue DD verf:EC
IPP Rev:B 11.03.03 as per revC DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S11GA		Purchased	No			100	sf	51.0000	0.1355	3.423158			

M304S11GA

304/316 0.125 Sheet

**

W 12.03.31

Location

Loc Qty

Loc Code

MAT020

51

120243

19

121070

32

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DART AEROSPACE LTD		Work Order:	82121
Description: Aft Crosstube Lug Plate		Part Number:	D4149-1
Inspection Dwg: D4149 Rev: C		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.129	+0.005/-0.001	0.130	✓		Vern	HB-02
Ø0.191	+0.005/-0.001	0.191	✓		Vern	HB-02
Ø0.257	+0.006/-0.001	0.257	✓		Vern	HB-02
Ø0.38	+0.006/-0.001	0.379	✓		Vern	HB-02
0.380	+/-0.010	0.390	✓		Vern	HB-02
0.469	+/-0.010	0.469	✓		Vern	HB-02
0.310	+/-0.010	0.311	✓		Vern	HB-02
0.750	+/-0.010	0.750	✓		Vern	HB-02
3.25	+/-0.030	3.252	✓		Vern	HB-02
0.65	+/-0.030	0.654	✓		Vern	HB-02
0.63	+/-0.030	0.630	✓		Vern	HB-02
5.46	+/-0.030	5.46	✓		Vern	HB-02
3.80	+/-0.030	3.80	✓		Vern	HB-02
2.13	+/-0.030	2.125	✓		Vern	HB-02
1.313	+/-0.010	1.315	✓		Vern	HB-02
0.625	+/-0.010	0.626	✓		Vern	HB-02
0.375	+/-0.010	0.373	✓		Vern	HB-02
1.175	+/-0.010	1.175	✓		Vern	HB-02
0.752	+/-0.010	0.753	✓		Vern	HB-02
1.588	+/-0.010	1.592	✓		Vern	HB-02
1.587	+/-0.010	1.587	✓		Vern	HB-02
11.15	+/-0.030	11.15	✓		Vern	Prod-W-J-02
0.750	+/-0.010	0.759	✓		Vern	HB-02
1.55	+/-0.030	1.554	✓		Vern	HB-02
1.12	+/-0.030	1.128	✓		Vern	HB-02
8.42	+/-0.030	8.42	✓		Vern	Prod-W-J-02
2.70	+/-0.030	2.70	✓		Vern	HB-02
0.125	+/-0.010	0.117	✓		Vern	HB-02
Ø0.252	+0.003/-0.000	0.252	✓		Vern	HB-02

Measured by:	<i>[Signature]</i>
Date:	12.03.31

Audited by:	<i>[Signature]</i>
Date:	12/04/02

Preliminary Approval:	
Date:	

Rev	Date	Change	Revised by	Approved
A	10.08.04	New Issue	KJ	
B	12.02.01	Dimensions updated per Dwg Rev C	KJ	<i>[Signature]</i>

0.252 / 0.126
257 / 0.128
379 / 187

191 / 095
130 / 065

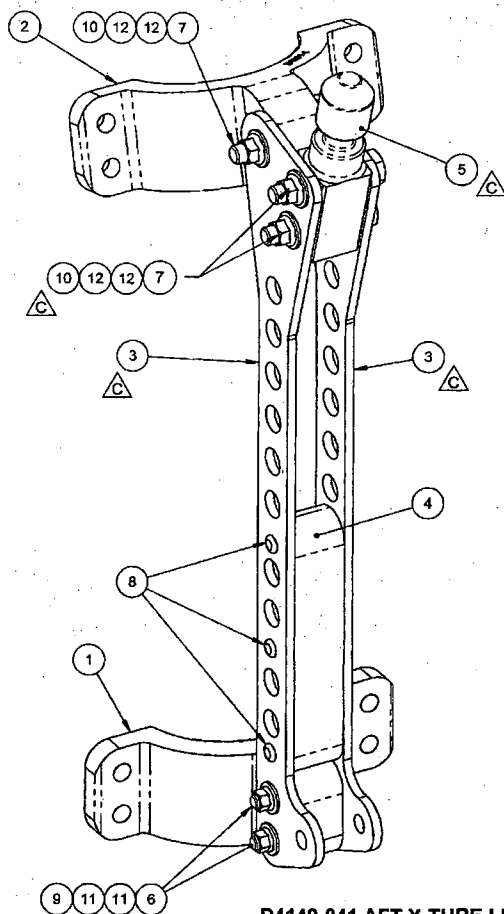
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NOTE: Date & initial all entries



D4149-041 AFT X-TUBE LUG ASSY

ITEM	QTY -041	P/N	DESCRIPTION
	X	D4149-041	AFT X-TUBE LUG ASSY
1	1	D3910-1	X-TUBE LUG
2	1	D4091-1	MOUNTING LUG
3	2	D4149-1	AFT X-TUBE LUG PLATE
4	1	D4149-3	SPACER
5	1	D4149-5	EYEBOLT STUD
6	2	AN3C12A	BOLT
7	3	AN4C13A	BOLT
8	3	MS20615-4M18	RIVET
9	2	MS21043C3	NUT
10	3	MS21043C4	NUT
11	4	NAS1149C0332R	WASHER
12	6	NAS1149C0432R	WASHER

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 82121 MLJ
12/03/23

RELEASED
2011-02-20
JW

C	HOLE DIA CHANGED TO 0.257" (D8-3); HOLE DIA CHANGED TO 0.250" (C8-5); REPLACED QTY(2) AN3C12A, MS21043C3 AND QTY(4) NAS1149C0332R WITH QTY(2) AN4C13A, MS21043C4 AND QTY(4) NAS1149C0432R (D3-1, D7-2)	SC	11.02.22
B	MS20615-4M18 WAS MS20615-4M20 (ZN D3-1 & B7-2); ADDED D4149-5 (SHT 5); D4149-5 WAS D3909-5 (ZN D3-1 & D7-2); REPLACED QTY(3) MS20615-4M18 WITH QTY(2) EACH AN3C12A, MS21043-3 AND QTY(4) NAS1149C0332R WASHER (ZN D3-1, G7-1, B7-2 & B3-2); Ø0.191 2 PL REPLACES Ø0.129 3 PL (ZN D8-3); REASON: SEE TR-D350-607-2 REV. B.	MB	10.07.05
A	NEW ISSUE	MB	10.06.18
REV.	DESCRIPTION	BY	DATE
DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D4149	SHEET 1 OF 5
APPROVED		TITLE	SCALE
DE APPR.		AFT X-TUBE LUG ASSY	NTS
DATE	11.02.22	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.	

NOTES:
1) MATERIAL: N/A
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4149-041" USING FINE POINT PERMANENT INK MARKER
7) WEIGHT: 2.21 lbs

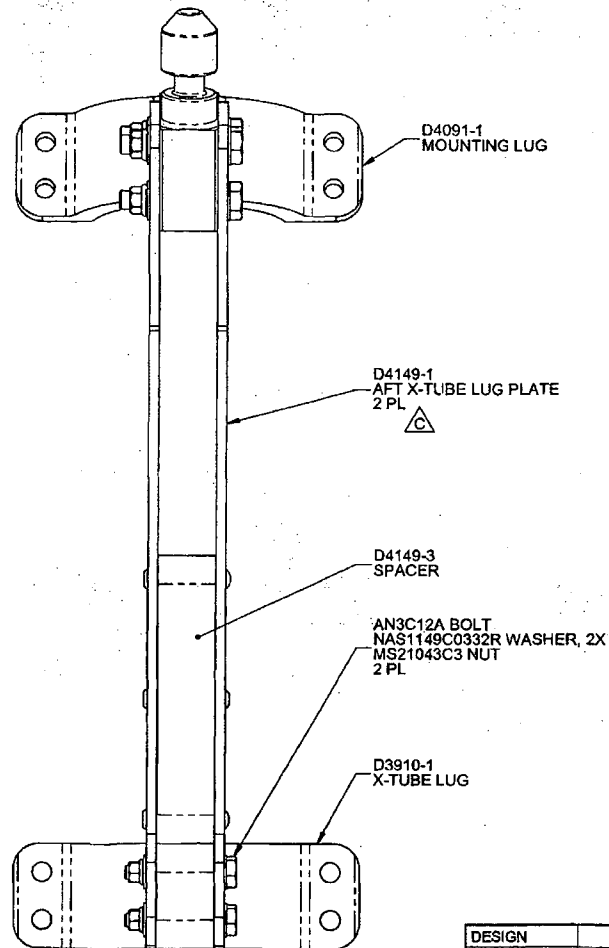
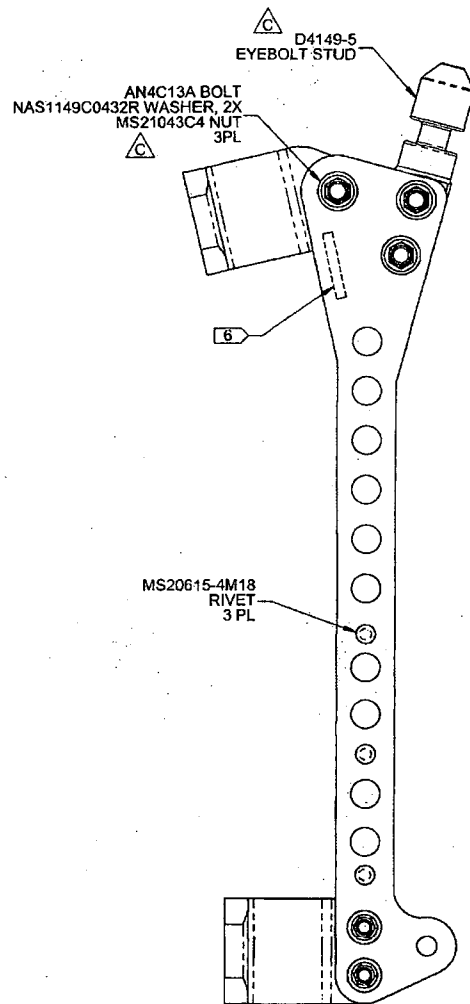
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4149-041 AFT X-TUBE LUG ASSY

82121

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2011-02-24

DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D4149	SHEET 2 OF 5
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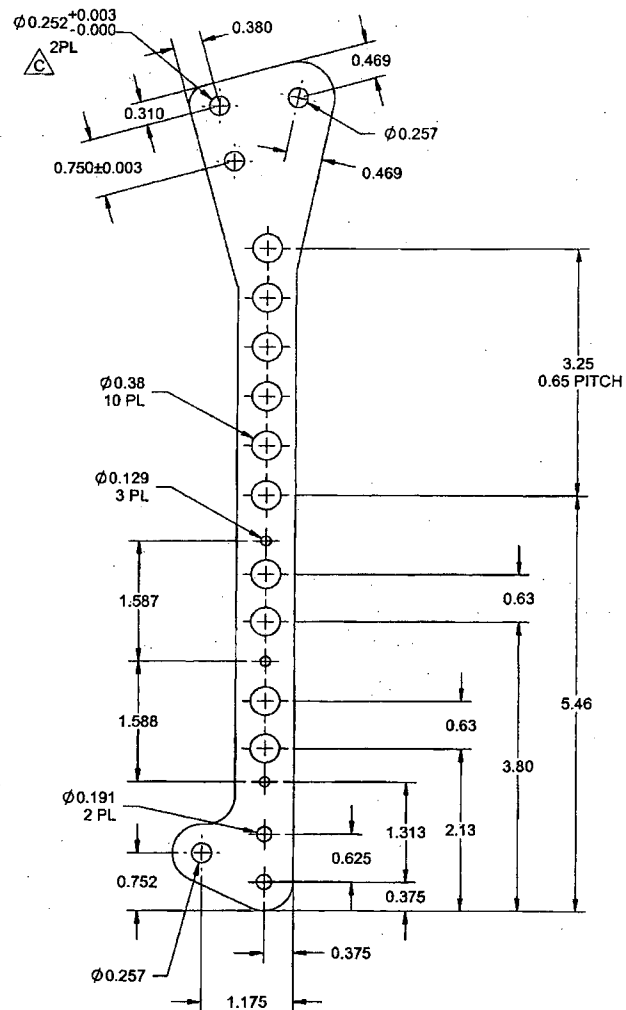
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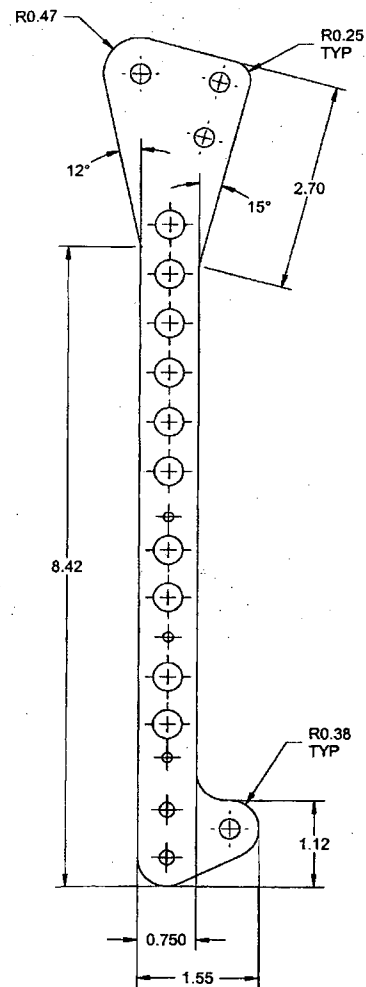
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D4149-1 AFT X-TUBE LUG PLATE



NOTES:

- 1) MATERIAL: 303/304/316 STAINLESS STEEL 0.125" SHEET
ANNEALED 2B FINISH,
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240
OR ASME SA240
REF DART SPEC M304S11GA OR M303S11GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.33 lbs

DESIGN	MB	DART AEROSPACE LTD	
DRAWN	SC	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D4149	SHEET 3 OF 5
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82121

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2011-02-24

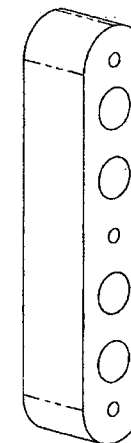
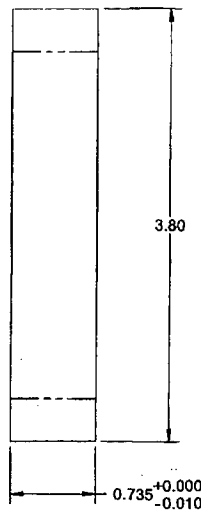
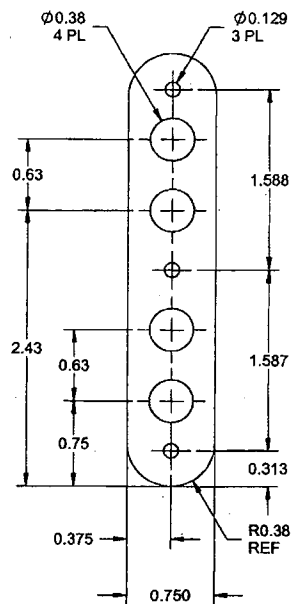
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4149-3 SPACER

82121

RELEASED
2011-02-22

NOTES:

- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A276 OR A582
REF DART SPEC MS304B OR MS303B
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.47 lbs

DESIGN	MB	DART AEROSPACE LTD	
DRAWN	SC	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D4149	SHEET 4 OF 5
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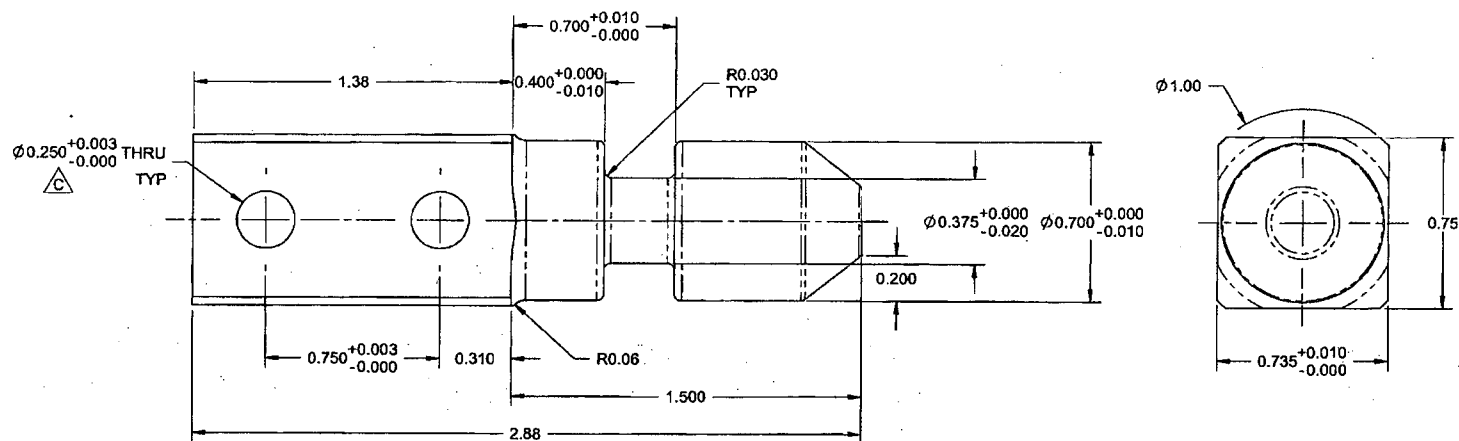
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NOTE: Date & initial all entries



D4149-5 EYEBOLT STUD

NOTES:

- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A276 OR A582
REF DART SPEC MS304B OR MS303B
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4149-5" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.32 lbs

DESIGN	MB	DART AEROSPACE LTD	
DRAWN	SC	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D4149	SHEET 5 OF 5
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